



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/698,881

10/27/2000

Esa Torma

796.372USW1

8858

32294

7590

12/08/2005

SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER

NGUYEN, STEVEN H D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 12/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/698,881	TORMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Steven HD Nguyen	2665	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claim 8, line 4, "said parallel standard PCM signals" is vague and indefinite because it does not refer to any previous element. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopping (USP 5313467) in view of the admitted prior art.

Regarding claims 8, 13 and 14, Chopping discloses a network element for a telecommunications networks comprising a first interface unit for receiving parallel standard PCM signals wherein each of PCM signals being defined as first level signal "T1 or E1" in the PDH in the network elements (Figs 9-10, SDH MUX for using to receiving a plurality of E1

Art Unit: 2665

signals); a second interface unit for receiving a packet data stream (Fig 7, Ref ATM-VC4 SDH for receiving a packet stream and storing them into cell buffer, it is similar to ATM-VC4 SDH of Figs 9-10); multiplexing means which is coupled to first (Fig 7, TU-VC4) and second interface (Fig 7, ATM-VC4) for (Figs 7-10, MUX for multiplexing the parallel PCM signals into the payload of the output frame (VC4); Col. 4, lines 39-43 discloses the portion of payload corresponding the PCM signals or See col. 6, lines 20-25 wherein a portion of frame allocated for ATM and the other portion allocated for ATM or voice) multiplexing said parallel PCM signals on a time-division basis into a transmission frames the total capacity of a payload portion of the frame essentially corresponding to the capacity of N PCM signals; wherein the multiplexing means are provided with configuring and allocating means (Col. 9, lines 46 to col. 10, lines 14, reads on a means for dividing the payload of the complex frame into two variable parts wherein each part is corresponding the required current transmission of the first source and the other part corresponds to packet stream from the second source, the portions carry at least one of traffic source such PCM or packet stream) for dividing the total capacity of the payload portion between at least two parts of variable capacity; wherein each part is configured to be allocated a desired portion of the total capacity of the payload portion in accordance with the current transmission requirement and for allocating a part with the desired capacity to at least one traffic source from a group in which a number of PCM signals constitutes a first traffic source and a number of packet data streams constitutes a second traffic source and a second interface (Fig 10 and 19-20 disclose an interface for receiving ATM cell) for receiving the packet data stream from the second traffic source and directly input into the multiplexing means according the allocation portion of the second traffic source on the output frame (Col. 4, lines 39-

Art Unit: 2665

43 discloses the capacity of payload of the frame is divided between the current transmission of PCM signals and other part is allocated for packet stream; see col. 2, lines 39-43 wherein the output frame carries the PCM signal and packet stream signal according the allocated bandwidth; See col. 6, lines 20-25, a portion of frame allocated for ATM and the other portion allocated for ATM or voice; Col. 7, lines 20-24, 33-34; Col. 9, lines 47-50). However, Chopping fails to disclose said second interface unit comprising rate adaptation means for adapting the bit rate of the packet data stream to correspond to the capacity of the payload portion allocated to the packet stream to correspond to the capacity of the payload portion allocated to the packet stream, the output of said rate adaptation means being directly connected to said multiplexing means. In the same field of endeavor, the admitted prior art discloses said second interface unit comprising rate adaptation means for adapting the bit rate of the packet data stream to correspond to the capacity of the payload portion allocated to the packet stream to correspond to the capacity of the payload portion allocated to the packet stream, the output of said rate adaptation means being directly connected to said multiplexing means (Fig 3 discloses a rate adaptation for receiving the packet data stream and direct input them into the multiplexer).

Since, Chopping suggests the use of buffer for storing the received cell before multiplexing into the allocated portion of the output frame. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply an rate adaptation with ATM interface as disclosed by the admitted prior art into the system of Chopping. The motivation would have been to map the transmitting rate of the ATM interface with the allocated bandwidth for packet stream on the payload portion of transmission frame and prevent data loss.

Art Unit: 2665

Regarding claims 9 and 15, Chopping discloses a portion of the total capacity of the transmission frame corresponding to the capacity required by one PCM signal multiplied by an integer is allocated to all traffic sources using the same transmission frame (col. 3, lines 39-43 the capacity required by one PCM signals is multiplied by an number is allocated to all traffic sources using the same frame in order to allocate the bandwidth for PCM signal, one PCM signal is 8 bit and equal one slot).

Regarding claims 10 and 17, Chopping discloses at least one traffic source is ATM traffic (Fig 3, ATM).

Regarding claims 11 and 16, Chopping discloses bits of each part are interleaved in the payload portion, and that of the bits of the payload portion, it is indicated bit-specifically whether they are allocated for the use of PCM signals or a packet data stream (col. 3, lines 20-25).

Regarding claims 12 and 18, Chopping discloses the capacity of the payload portion is entirely allocated for the use of one packet data stream (col. 7, lines 8, 8 columns are allocated for packet stream).

### ***Response to Arguments***

5. Applicant's arguments filed 9/28/05 have been fully considered but they are not persuasive.
6. In response to applicant states that Chopping does not disclose a multiplexing for multiplexing a plurality of E1 or T1 signals and ATM signal into a output frame. In reply, Chopping discloses a MUX for multiplexing a packet stream that received over second interface and a plurality of parallel E1 signals into a VC-4 frame as show in Figs 9-10. Furthermore, the

Art Unit: 2665

applicant states that Chopping does not disclose a multiplexer for directly multiplexing parallel E1 or T1 signals and ATM signal into a output frame. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a multiplexer for *directly multiplexing parallel E1 or T1 signals and ATM signal into a output frame*) are not recited in the rejected claim(s) because the claim does not state the first interface for receiving and outputting the parallel PCM signals to the multiplexing device. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'SHN', with a long horizontal line extending to the right.

Steven HD Nguyen  
Primary Examiner  
Art Unit 2665  
December 3, 2005